

REMARKS

Claims 1-4, 6, 7, 12-27, and 38-52 are pending; Claims 1, 2, 4, 6, 12-16, 19, and 21-23 have been amended; Claims 5, 8-11, and 28-37 have been canceled; and, Claims 38-52 have been added.

The Examiner objected to the drawings and indicated that Figure 1 should be designated as "Prior Art." A REPLACEMENT SHEET is attached noting that the subject matter shown in Figure 1 is prior art. The Examiner also objected that a figure showing the "timing selection circuit" in a "processing unit" should be included. NEW SHEET includes FIG. 2A showing a timing selection circuit within a processing unit. Thus, the Applicant submits that the Examiner's objections have been addressed and requests that the Examiner remove the stated objections to the drawings.

The Examiner objected to numerous Claims because of informalities. The Applicant has amended Claims 1, 2, 21, 22 and 23 to address the Examiners' objections and submits that Claims 1, 2, 21, 22 and 23 are free from the informalities the Examiner objected to. The Applicant, therefore, requests that the Examiner remove the objections based on informalities regarding Claims 1, 2, 21, 22 and 23.

The Applicant has either amended the following Claims to remove the complained of language or canceled the following Claims: 4, 5, 6, 8, 10, 12, 15, 30, 33-35, and 36. The Applicant submits that the Examiner's objections to such Claims are moot and requests that the Examiner remove those objections.

The Examiner objected that the phrase "the multipath components" in Claim 14 lacks antecedent basis. But, Claim 14 depends from Claim 1 which recites, at lines 7-8: "the signal acquisition section outputting sampled signals corresponding to a plurality of multipath

components." (emphasis added.) The Applicant, therefore, submits that the "multipath components" phrase used in Claim 14 has antecedent basis and requests that the Examiner remove this objection.

The Examiner also objected that the phrase "the configuration of the processing units" at lines 2-3 of Claim 14 should be replaced by "a configuration of a corresponding one of the plurality of processing units." Amended Claim 14 recites "the configuration of the at least one of the plurality of processing units", which phrase has antecedent basis in Amended Claim 1, which recites "at least one of the plurality of processing units." The Applicant, therefore, submits that Claim 14 is free from informalities, complies with the applicable U.S. Patent Law, and requests that the Examiner remove the stated objections to Claim 14.

The Applicants appreciate the Examiner's indication of allowable subject matter in Claims 14 and 21 and, per the Examiner's indication, have presented new independent Claims 43 and 48, which include all of the limitations of originally filed Claims 14 and 21. The Applicant therefore requests that the Examiner place new independent Claims 43 and 48 and new dependent Claims 44-47 and 49-50, which depend from Claims 43 and 48, respectively, in condition for allowance.

Before addressing the Examiners' objections based on cited references, a brief summary of embodiments of the invention is provided. In one embodiment, the rake receiver includes configurable correlator resources, where the correlator resources may be configurable to perform one of a plurality of correlation functions. Thus, the same configurable correlator resource may perform, for example, a timing function during a first time period and, during a second time period, perform a pilot function. This provides the receiver with added flexibility.

In other embodiments, the rake receiver includes correlator resources within a processing unit, where one or more of the correlator resources may be powered on, while others are powered down. This allows the receiver to conserve power when not all of the correlator resources within a processing unit are required. A processing unit as a whole may also be powered up or down. This provides lower complexity control and switching than in the case where correlators are independently powered up or down.

The Examiner rejected Claims 1, 2, 4, 6, 7, 10-13, 15 and 26 under 35 U.S.C. § 102(e) as being anticipated by US Publication No. 2003/0128678 ("Subrahmanya"). The Applicant traverses this rejection.

Subrahmanya discloses a rake receiver that includes a number of fingers that can process multipaths in a received signal. (§ 29.) To process the multipaths, each finger includes a data channelizer (424a) and a pilot channelizer (424b). (§ 43.) Contrary to the Examiner's reading of Subrahmanya, the Applicant submits that the data channelizer and pilot channelizer disclosed in Subrahmanya do not disclose "configurable correlator resources", as recited in amended Claim 1.

The data channelizer and pilot channelizer appear to always perform the same function and output the same information. For example, the data channelizer appears to always performs the same function to provide "data symbols . . . that represent the data for the multipath being processed by the finger processor" (§ 43); and, the pilot channelizer always performs the same function to provide "pilot symbols . . . [that] represent the pilot recovered" (§ 44). The data channelizer, however, does not provide pilot signal information, and the pilot channelizer does not provide data channel information.

On the other hand, the "configurable correlator resource" recited in Claim 1 is "configurable to perform a plurality of correlation functions." Thus, the same configurable correlator resource may, for example, perform data correlator, pilot correlator, and time correlator functions and provide data, pilot and timing information, respectively. For the foregoing reasons, the Applicant submits that Claim 1 and Claims 2, 4, 6, 7, 12, 13, 15 and 26, which depend from Claim 1, are patentable over Subramanya. The Applicant also submits that Claims 3, 5, 16-20, 22, 23, 24-25, 27, 28, and 29, which the Examiner rejected under 35 U.S.C. § 103 under Subrmanya in view of other references, are patentable because they depend from allowable independent Claim 1.

The Applicant also notes that dependent Claim 14 recites that "at least three of the plurality of configurable correlator resources" are configured so that they assume either a "timing function," "pilot function," or a "data function"; and that dependent Claim 15 recites that one of the correlator resources in a processing unit "is configurable . . . to assume a timing function, a pilot function or a data function" and another correlator resource in the same processing unit "is powered down."

In addition, the Applicant notes that new Claim 38 recites "first and second correlator resources" are in different processing units and "perform the first and second functions on a first multipath signal"; that new Claim 39 recites a receiver including first through fifth configurable correlator resources where the third through the fifth correlator resources "perform data channel functions" "when a transmitter transmits a first signal defined by three scrambling codes," and where, "when the transmitter transmits a second signal defined by two scrambling codes," "the third and fourth configurable correlator

resources are configured to perform data channel functions and the fifth configurable correlator resource is powered down; and, that new Claim 40 recites a receiver with a first configurable correlator resource, where the first resource "performs a first correlation function during a first time period and performs a second correlation function during a second time period." The Applicant submits that the subject matter defined in all Claims depending from Claim 1, including dependent Claims 14-15 and new Claims 38-40, is not disclosed in the art of record and is allowable.

The Applicant added new Claim 51, which recites that a processing unit includes "first and second correlator resources" and that "the first correlator resource is powered down during a first time period and the second correlator resource is powered on during the first time period." The Applicant submits that the cited references do not disclose the elements recited in Claim 51 and, therefore, submits that Claim 51 and depending Claim 52 are in condition for allowance.

The Applicants traverse the objections and rejections made by the Examiner and submit that Claims 1-4, 6, 7, 12-27, and 38-52 are in condition for allowance. The Applicants request the Examiner to remove the stated objections and rejections and issue a Notice of Allowance for Claims 1-4, 6, 7, 12-27, and 38-52.

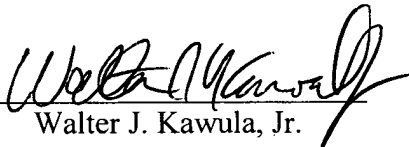
If the examiner finds that there are any outstanding issues which may be resolved by a telephone interview, the Examiner is invited to contact the undersigned at the below listed number.

A check in the amount of \$2,420.00 to cover any extension of time that might be necessary is submitted herewith. The Examiner is authorized to charge account no. 23-0920 to

cover any shortage of fees and requested to charge said charge account in the event that there has been an overpayment.

Respectfully submitted,

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AMENDMENT TO THE DRAWINGS

Attached is a "REPLACEMENT SHEET" and "NEW SHEET" of drawings. The "REPLACEMENT SHEET" includes FIGS. 1-2 and replaces the original drawing sheet that included FIGS. 1-2. FIG. 1 in the REPLACEMENT SHEET specifies that FIG. 1 is "prior art".

The "NEW SHEET" shows new FIG. 2A, which is an alternate embodiment of the invention and which is described in the application as originally filed. No new matter has been added. FIG. 2A shows an embodiment in which a timing selection circuit is within a processing unit.

Attachment: Replacement Sheet; New Sheet